DOCUMENT RESUME

ED 172 294 CS 502 555

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TITLE Message Valence, Familiarity, Sex and Personality Effects on the Perceptual Distortion of Height.
NOTE 15p.; Paper presented at the Annual Meeting of the Eastern Communication Association (Philadelphia, Pennsylvania, May 5-7, 1979)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Body Height; *Communication (Thought Transfer); Higher Education; *Interpersonal Relationship; *Perception; *Psychological Studies; Speech Communication
IDENTIFIERS *Communication Research

ABSTRACT

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ED172294

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Message Valence, Familiarity, Sex and Personality Effects on the Perceptual Distortion of Height

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This study examined the effects of message valence, familiarity and communicator sex on the perceptual distortion of height. Additionally, the relationships of self-esteem and independence of judgment to perceptual distortion were studied. Volunteers (N = 139) from a basic communication course were randomly assigned to one of the eight conditions of the study. Results indicated that familiarity with the message source and sex of the communicator were predictors of the perceptual distortion of height.

Competitively selected paper presented to the Nonverbal Communication Interest group at the Eastern Communication Association convention, Philadelphia, May 5-7, 1979.

CS502565

Message Valence, Familiarity, Sex and

Personality Effects on the Perceptual Distortion of Height

It may often be the case that our language betrays an underlying psychological dynamic so subtle that we are unaware of its operation. For example, when we think highly of a person, we may describe him as being a "big man" in our eyes. When our admiration is less, we speak of a person being "a little short" in some quality of another. Perhaps it was language usage such as this which first prompted investigators to examine the relationship between an individual's status and estimates made of the same individual's height. The question was: do we see higher status people as being taller than lower status people? The answer seems to be yes.

While there are exceptions (Lerner & Moore, 1974), most investigations have shown that as the status of an individual increases, height estimates made for that person also increase (Dannenmaier & Thumin, 1964; Wilson, 1968). Lechelt (1975) found that the more highly esteemed the occupation, the taller the estimates of persons in the occupation. Examining social distance, Koulack and Tuthill (1972) demonstrated that the more we are willing to interact with the members of another group, the taller we estimate the members of that group to be. In general the findings seem clear; as our regard for persons increases, our estimates of their height also increases.

But, as clear as the findings seem, there are a number of unanswered

questions. The first of these concerns the nature of the message conveyed to the subject by the target person. While there are exceptions (Baker & Redding, 1962), in the vast number of studies there has been no message conveyed at all; the target person simply walked into a room and walked out again. This is not very realistic. Ordinarily when we encounter another person, that person has something to say to us, with the message ranging from very good news to very bad news. In most cases a positive or approving message ought to bring us psychological pleasure; a negative or disapproving message ought to bring us psychological discomfort. While we are not talking about reinforcement in its strictest sense, it is the case that "reinforcement theorists usually assume that such 'social' reinforcers as praise or disapproval" are especially important in human interaction situations (Deutsch & Krass, 1965, p. 83). However, it should be made clear that we are not looking at the reinforcement per se but rather at the source of the reinforcement: the reinforcer. In this vein, we suspect that a message approving of the listener would increase the estimates made of the message source's height. The prediction is: an approving message will result in taller estimates for the message source than will a disapproving message.

Second, as we interact with another person, his/her height should become less of a mystery to us. A fleeting glimpse of an individual could produce a rather different estimate than would close observation or interaction over a period of time. The studies cited thus far have been mixed in their presentation of familiar or unfamiliar persons. In some, the target person was a familiar individual (Dannenmaier & Thumin, 1964); in

others, the target person was obviously unknown (Wilson, 1968; Koulack & Tuthill, 1972; Lechelt, 1975; Baker & Redding, 1962). However, the question of familiarity with the target person has not been systematically explored. Another purpose of the present study is to examine the impact of familiarity on the perceptual distortion of height. Specifically, we predict: the more familiar the target person, the less the effect of perceptual distortion.

Third, the sex of the target person could make a difference in our perception of that person's height. Essentially, we are proposing a social expectation effect. For instance, we know that certain academic fields are seen as masculine while others are seen as feminine (Goldberg, 1968). In the behavioral sciences, one need only peruse the journals briefly to discover that males outnumber females greatly. In a sense, a woman college professor in these areas might be considered an "unfamiliar" or --more accurately-- a "less expected" message source than a male. Thus, the prediction is that: perceptual distortion of height for a female message source will be greater than for a male message source.

Beyond a concern for determining whether or not perceptual distortion of height occurs, it would be instructive to be able to identify those persons who are more or less prone to perceptually distort the height of others. Clearly, one of the central issues about personality structure is the way in which people see themselves. We know for example that persons with high self-esteem are more resistant to social influence, in the form of persuasion, than are people with low self-esteem (Janis & Field, 1959). We do not know if high self-esteem persons are resistant

to the influencing effects of social status (perceptual distortion). True, Prieto and Robbins (1975) found that people's self-esteem was unrelated to their actual height, but was related to satisfaction with actual height. But this tells us little of the relationship of self-esteem to the proclivity to distort another's height. Hence:

Research Question 1

What is the relationship between self-esteem and the tendency to distort the height of a target person?

Second, since we know that some individuals are less susceptable to the influence of the social group (Barron, 1953), it is reasonable to assume there may be other situations in which the same individuals are also unaffected by social phenomena. Perhaps these independent persons see the true height of a target person regardless of the status or esteem of the target. We ask:

Research Question 2

What is the relationship between independence of judgment and the tendency to distort the height of a target person?

In summary, this study seeks to investigate the perceptual distortion of height along two separate fronts. First, what is the effect of message valence, target familiarity, and sex of the message source on height distortion? Second, what are the relationships of the personality variables of self-esteem and independence of judgment with the proclivity to distort the height of a target person?

Method

All subjects in the study were volunteers from basic courses in communication. The students were given extra credit in the course for participating but there was no penality for not participating. At the appointed day and hour, students assembled in a room to view a video tape and responded to a questionnaire afterward.

The video tape showed a person sitting at a desk delivering one of two versions of a message. The positive valence message said that a paper, which has been handed in, was "one of the best" ever received from an undergraduate. Further, the student was encouraged to consider a major in the field of communication. The negative valence message said that the paper had been plagarized and the student was to be academically removed from the course. The message was all the more realistic since every student in the study had turned in an assignment a week or two before. Each message contained 16 sentences. The positive message had 233 words while the negative message had 234 words. The Flesch reading ease score (1949) for each message was 74 -- fairly easy. (While the Flesch scale was originally developed for written prose, its applicability to spoken discourse has been demonstrated by past research (Cartier, 1955; Harwood, 1955).) Halfway through each message, the speaker rose and walked to the front of the desk where a half-sitting, half-standing pose was assumed. Thus, all subjects saw the speaker from the same camera angle in reference to a normal size office desk.

The speaker on the video tape was either the instructor in a course in which the student was enrolled or an unknown instructor. The male or female communicator was thus a familiar or an unfamiliar person to the students since the data were gathered in the seventh week of the semester.

Following the viewing of the video tape, students completed a questionnaire including measures of self-esteem (Rosenberg, 1958), independence of judgment (Barron, 1953), and their estimates of the communicator's height.

The basic design of the study was a 2x2x2 factorial analysis of variance with the factors being (1) an approving or disapproving message (2) delivered by a familiar or an unfamiliar instructor (3) who was male or female.

Results

Two manipulation checks were performed to insure that the experimental conditions were correctly perceived. All subjects were asked, "Are you familiar with the speaker you just saw?" For the familiar condition, only those students who responded that they were now enrolled in a course with the speaker were used. For the unfamiliar condition, only those who had never seen the speaker before were included. The message valence checks were similar. Depending on the condition, only those students who perceived the message to be "very good" news or "very bad" news were used.

The subjects were tested in groups with each group of volunteers being randomly assigned to conditions of the study. Consequently, the number of subjects per cell varied somewhat from a low of 16 to a high of 21. The total number of subjects in the study was 139. Since we had unequal $\underline{n}$s, Bartlett's test of homoscedasticity was used to test for variance equality. The test was nonsignificant ($\underline{X}^2 = 10.94$; $\underline{df} = 7$), therefore, we were able to use a weighted means analysis of variance.

The first hypothesis predicted that an approving message would result in taller height estimates for the message source than would a disapproving message. The results are in the predicted direction. The approving message resulted in a mean distortion of +1.89 inches for the source; a disapproving

message resulted in a mean distortion of +1.58 inches. But this difference was not statistically significant (F (1,138) = .74; p = .40).

The second hypothesis predicted that the height estimates would be distorted more for unfamiliar persons than they would be for familiar persons. The data strongly support this prediction (F (1,138) = 9.82; $p < .0025$). The mean perceptual distortion for the familiar communicator was +1.17 inches, for the unfamiliar communicator it was +2.29 inches.

The third prediction was that the height of the female college professor would be distorted more than that of the male college professor. The data support this prediction (F (1,138) = 5.10; $p < .024$). The height of the male professors was distorted an average of +1.33 inches while the height of the female was distorted an average of +2.14 inches.

Perhaps the most important feature of any analysis is not whether significance is achieved but the importance of the differences found. To examine the relative importance of our findings, ω^2 (Hays, 1963) was calculated for all significant effects. By combining the explained variance for familiarity (.0589) and for message source sex (.0273), we are explaining about 8.5% of the phenomenon of perceptual distortion. It is also worth noting that the previous studies have identified the crucial variable of perceptual distortion to be the status or esteem accorded to the target person. In the present investigation status, for all practical purposes, was held constant. Every communicator was an instructor. Hence, we might speculate that a large portion of the remaining variance is attributable to status or esteem.

Finally, we turn to the two research questions. The data reveal that neither self-esteem (r = -.10; N = 139) nor independence of judgment

(r = .04; N = 139) are related to perceptual distortion. Further, each measure is a separate attempt to locate a personality base for perceptual distortion since self-esteem and independence of judgment are unrelated to each other (r = -.01; N = 139).

Discussion

Clearly, these data indicate that perceptual distortion of height is related to the degree of familiarity between the observer and the observed. This finding suggests that perceptual distortion of height is a diminishing occurrence with the magnitude dampening over time and with increased interaction. If so, height distortion may affect only initial encounter situations and be of little importance for long standing relationships. This observation does not mean that the perceptual distortion of height holds no interest for researchers. Indeed, many of the situations in which there is keen interest are situations of limited or initial encounters. Virtually, all the research of persuasion and credibility fall into this genre for example.

Findings regarding the message source's sex should be viewed with caution for at least three reasons. First, because of situational constraints, only one female was used as a message source whereas two males were used in a balanced design. It is possible that some specific reation toward this particular female may be the cause of our results. Second, another study has also found significant differences in the height perceptions of male and female target persons (Lerner & Moore, 1974), but in the opposite direction. In this study, the height of the female was distorted more than that of the male and in the positive direction;

Lerner and Moore (1974) found the female's height was undistorted. Sex of the message source appears to be conditionally dependent on some situational variable.

Moreover, it is now clear why the message valence manipulation was unsuccessful. The messages were shown to the student volunteers in groups. Since students saw the message in the presence of others, it was easy to project the news on to the other students in the room. During debriefing sessions, several students indicated that they knew that their work was not as good as the good news indicated and they hoped that their work was not as bad as the bad news indicated. Several students responded that the bad news was not particularly bad. When questioned why, one student responded, "If he stole that material, he deserved to fail." Many students saw the message, good or bad, as being directed at other people.

The finding that neither self-esteem nor independence of judgment relate to the perceptual distortion of height raises some interesting conjectures. First, it may be that there are definable personality characteristics associated with the propensity toward distortion and we have simply not found them. Or, second, it may be that the perceptual distortion of height is not a personality based variable at all but depends on the situation.

In sum, this study has demonstrated that familiarity with the communicator diminishes the amount of perceptual distortion, that the sex of the communicator is an important variable in distortion and that the personality variables of self-esteem and independence of judgment do not relate to the perceptual distortion of height.

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Acknowledgements

We are indebted to Robert Doolittle and Mary Ellen Munley for serving as communicators in the study. George Bailey provided technical assistance in the use of the videotaping equipment.

Appendix A

Analysis of Variance of Familiarity, Message Valence and Communicator sex

Source	Mean Square	df	F	ω^2
A: Familiarity	43.54	1	9.82*	.0589
B: Message Valance	3.27	1	.74	
C: Communicator sex	22.60	1	5.10*	.0273
A x B	.49	1	.11	
A x C	4.27	1	.96	
B x C	2.78	1	.63	
A x B x C	1.86	1	.42	
Residual	4.43	131		
Total		138		.0862

*$p < .05$